

Remarks

In view of the foregoing amendments and following remarks responsive to the Office Action dated April 21, 2006, Applicant respectfully requests favorable reconsideration of this application.

In section 1 of the Office Action, the Office objected to the specification, particularly pointing out several typographical errors. Applicant has herein corrected all of those errors as suggested by the Office, except for one. In addition, Applicant has noted several other typographical errors and has corrected them also. The only change proposed by the Office that Applicant has not effected is the proposed change in paragraph 27, line 2 from "that voltage" to "the voltage". In paragraph 27, line 2, the voltage being referred to is the 3.2 volts previously mentioned in that paragraph. Accordingly, the term "that voltage" is correct. Applicant appreciates that the term "the voltage" also would be correct. Nevertheless, no correction is required.

In section 2 of the Office Action, the Office objected to the specification under 37 CFR §1.71(a) because it is not sufficiently enabling. Specifically, the Office noted that device 207 in Figures 2 and 4 is identified as a multiplexer in paragraph 25, line 2, and paragraph 31, line 2 and both figures; and as a demultiplexer everywhere else throughout the specification. The Office asserted that it is not completely clear whether this is a multiplexer or a demultiplexer and asserted that one of ordinary skill in the art would have to know which part to use in order to make and/or use the invention. The Office also asserted that it is not clear whether transistors M1, M2, M4, M6, M7, M9 and M10 are NMOS or PMOS.

First, Applicant notes that the Office has not objected to the specification or rejected any claims based on 35 USC §112, first paragraph, as non-enabling. Accordingly, despite the non-enabling language used in the rejection, it is assumed that the Examiner agrees that the specification is enabling and that the matters raised in section 2 of the Office Action are merely formalistic and require correction. Particularly,

it is clear from the specification that element 207 is a demultiplexer, and the few instances in which it is termed a multiplexer were clearly typographical errors, which applicant has now corrected. Specifically, paragraph 14, lines 5-7 note that demultiplexer 207 "provides the output of the operational amplifier 205 to either the 5 volt driver circuit 201a of the 2.5 volt driver circuit 201b". Furthermore, both Figures 2 and 3 are schematic and circuit diagrams, respectively, showing the inputs, outputs and operation of the demultiplexer. A simple review of these figures by anyone skilled in the relevant art would reveal that it is a demultiplexer, with one input and two outputs and clearly not a multiplexer.

With respect to the polarity of the transistors, Applicant respectfully traverses. The transistors are shown in the diagrams with proper symbols that indicate whether they are NMOS or PMOS transistors. Furthermore, anyone skilled in the art reviewing the drawings and the specification would be able to determine whether they were NMOS or PMOS transistors based on the specification, even if the figures had not already properly shown their polarities. Finally, it is unclear that the polarity of those transistors would even need to be specified in order for the specification to be enabling. It should be understood by those skilled in the art that the polarity of the various transistors can be different depending on the particular circuit implementation and that the figures merely illustrate a single particular implementation.

Nevertheless, note that, as indicated in the figures, transistors M1, M2, M4, M6, M7, and M9 bear the symbol, \nwarrow , indicating that they are PMOS transistors and transistor M10 bear the symbol, \rightarrow , indicating that it is an NMOS transistor. Applicant further notes that paragraph 22 already states that M6 and M7 are PMOS transistors.

In section 3 of the Office Action, the Office objected to the drawings because they do not include reference numerals 100 and 403. The above discussed amendments to the specification in which reference numeral 100 has been changed to reference numeral 101 obviates the grounds for this rejection with respect to reference

numeral 100. Furthermore, with respect to the absence of reference numeral 403 from the drawing, rather than amending the drawing, Applicant has herein removed reference numeral 403 from the specification. The 4 volt rail is already clearly labeled in the figures and should not need a reference numeral, particularly since the other voltage rails referred to in the specification and the drawings do not have reference numerals either.

In section 4 of the Office Action, the Office further objected to the drawings as including reference numeral 206 not mentioned in the description. However, reference numeral 206 is mentioned in paragraph 27. Accordingly, the Office should withdraw this objection.

In section 5 of the Office Action, the Office objected to claims 10, 13, 14, and 17 listing several informalities. Applicant has herein amended the claims accordingly.

In section 9 of the Office Action, the Office objected to claims 2, 7, 12, and 16 as being of improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, with respect to claims 2, 12, and 16, which recite that the comparator has a first input coupled to the first node, a second input coupled to the lower voltage rail and an output coupled to the control terminal of the second transistor, the Office asserted that this is duplicative of claim 1, and particularly that claim 1 already recites the output being coupled to the control terminal of the second transistor. This point is well taken and applicant has amended claim 1 accordingly.

However, the Office also stated with respect to claims 2, 12, and 16 that claim 1 already recites that the comparator detects whether the voltage on the first node exceeds the voltage of the lower rail and further asserted that, in order to be able to do this, it must have a first input coupled to the first node and a second input coupled to the lower voltage rail, as recited in claims 2, 12, and 16. With respect to claims 7, 12, and 16, the Office noted that the comparator, by definition, outputs a first voltage level when the voltage at its inverting input is less than the voltage at its non-inverting input, and a

second voltage level on the voltage at its inverting input is greater than the voltage at its non-inverting input.

Applicant respectfully traverses with respect to all matters other than the aforementioned duplicative recitation of what the output of the comparator is coupled to. While it is true that a dependent claim must further limit the claim from which it depends, the examiner is taking an inappropriate approach to this requirement. The claims recite that the first and second input terminals are coupled to particular points. The claims from which they depend do not recite these limitations. That is all that is required in order to be considered to not run afoul of Section 1.75 (c). It is extremely difficult for an applicant to speculate that as to all possible ways in which a person or competitor might attempt to practice the invention. Applicant certainly does not concede that the only way to practice the invention claimed in claim 1 is the particular embodiment claimed in claim 2. Certainly, the Examiner also is in no position to make such a conclusion. 37 CFR §1.75 (c) is meant in a very literal sense. It is not up to the Office to make determinations such as set forth in the objection to these claims. A claim is objectionable under this subsection of the regulations only if the words literally claim the same thing. That obviously is not the case here since claims 2, 12, and 16 clearly recite connections between components not recited in the claims from which they depend, and claims 7, 12, and 16 clearly recite conditions not found in the claims from which they depend. Accordingly, applicant respect and requests the Office to withdraw the objection to claims 2, 7, 12, and 16.

In section 7 of the Office Action, the Office indicated that, should claim 2 be found allowable, claim 10 will be objected to as being a substantial duplicate thereof. In section 8 of the Office Action, the Office objected to claim 11 as being a substantial duplicate of claim 6.

Applicant respectfully traverses. With respect to Claims 2 and 10, claim 10 includes the limitation "a voltage rail", whereas claim 2 does not. More particularly, claim 10 is drawn to an output stage for a lower voltage driver of a dual stage power

supply circuit, whereas claim 1 is drawn to a protection circuit for preventing reverse conduction through a lower voltage driver that is coupled to a first node when a higher voltage driver coupled to the first node is driving the first node. While claim 1 mentions the lower voltage rail indirectly, it is not part of the claimed subject matter. With claims 2 and 10, applicant is claiming the same basic invention in two different contexts, namely, (1) the protection circuit alone and (2) the lower voltage driver including the protection circuit. This is perfectly acceptable. A manufacturer who manufactures only the protection circuit certainly could directly infringe claim 2 while not directly infringing claim 10. Accordingly, they certainly do not claim exactly the same subject matter so as to justify a double patenting rejection between two claims in the same patent.

With respect to claims of 6 and 11, they are distinct from each other for all of the same reasons discussed above in connection with claims 2 and 10.

In section 11 of the Office Action, the Office has further rejected claims 1-3, 10, 12, and 14 as unpatentable over Vulih in view of Kamiya. However, in section 12, the Office has indicated that claims 4-6, 8, 9, and 15 are merely objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Furthermore, applicant notes that claim 11 has not been rejected based on prior art grounds, but merely for double patenting. Applicant has noted above that claim 11, in fact, is not objectionable for double patenting.

Accordingly, Applicant has herein incorporated the limitations of claim 4 into claim 1, claim 11 into claim 10, and claim 15 into independent claim 14. Accordingly, all independent claims should now be allowable in accordance with the Office's indication of allowable subject matter in section 12 of the Office Action.

In view of the foregoing amendments and remarks, this application is now in condition for allowance. Applicant respectfully requests the Office to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,

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Date

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